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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/712,219	11/13/2003	Tyson Y. Winarski	90002.2797	8461

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EXAMINER	
BARTON, JEFFREY THOMAS	
ART UNIT	**PAPER NUMBER**
1753	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/712,219	WINARSKI, TYSON Y.	
	Examiner	Art Unit	
	Jeffrey T. Barton	1753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 February 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *16-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *16-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *20031113*.
4) ☒ Interview Summary (PTO-413) Paper No(s)/Mail Date. *20070524*.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:

Throughout the specification and claims, the term "dichroic" is misspelled as "dichronic". The word is also misspelled "dicronic" at page 10, line 17. This should be corrected in each instance. "Planck's constant" is also misspelled as "Planks constant" at Page 11, line 18.

Appropriate correction is required.

Claim Objections

2. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claims 1-5 filed on 23 April 2004 have been renumbered 16-20. In accordance with the interview of 29 May 2007, originally filed claims 1-15 (Filed 13 November 2003) are considered cancelled.

3. Claim 16 is objected to because of the following informalities:

The wording of claim 16 is awkward. In line 3, "said panes are parallel" should be amended to read, "wherein said panes are parallel", "said panes being parallel" or other suitable wording. In line 6, "solar cells pivot" should be amended to read, "solar

cells being configured to pivot", "solar cells being adapted to pivot", or other suitable wording.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 20 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 20 recites the limitation "said controller" in line 1. There is insufficient antecedent basis for this limitation in the claim. It appears the claim was intended to depend from claim 18, and it is treated as such herein.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 16 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Noguchi et al.

Regarding claim 16, Noguchi et al disclose a double pane window (Figure 1) comprising first and second parallel panes having perimeters (Figure 1, panes 7; English abstract); and a plurality of solar cells (21; Figures 1-3; Paragraphs 0006 and 0007) pivotally mounted between the panes.

Regarding claim 19, Noguchi et al disclose that the slats of the blinds, upon which the solar cells are positioned, are parallel to each other. (Figure 1) This is the conventional arrangement of slats on blinds.

In this rejection, undue weight cannot be given to the limitation "said plurality of solar cells pivot to follow a movement of the sun", because this limitation is directed to an intended use of the apparatus. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). In this instance, the blades of the blind could clearly be adjusted to follow movement of the sun, and the limitations of the claim are therefore met.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Noguchi et al in view of Schuman.

Noguchi et al disclose a double-pane window as described above in addressing claims 16 and 20.

Noguchi et al do not explicitly disclose a dichroic coating on one of the panes.

Schuman teaches the provision of spectrally selective coatings on windows that reflect the infrared portion of the spectrum while allowing transmission of visible radiation in order to minimize solar heat transmission into climate controlled rooms. ("Solar Glazing" and "How 'Selective' Glazings Work" sections) These coatings exhibit the same dichroism as the coatings of the instant specification, in that undesired wavelengths are reflected, while desired wavelengths are transmitted. (i.e. Compare transmission spectra of Schuman's Figures 5 and 7 with Instant Figure 4; discussion in "Selective Coatings" section)

It would have been obvious to one having ordinary skill in the art to modify one of the panes of glass in the window of Noguchi et al by providing a spectrally selective coating, as taught by Schuman, because Schuman teaches that such coatings reduce costs of climate control by reducing the transmission of infrared radiation to a structure's interior. ("The Benefits" section)

11. Claims 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noguchi et al in view of Bell.

Noguchi et al teach a double-pane window as described above in addressing claims 16 and 19. Noguchi et al also suggest a regulatory mechanism for controlling the angle of the blinds, but are silent concerning details of the mechanism. (Paragraph 0007)

Noguchi et al do not explicitly disclose a controller coupled to the solar cells, or a memory included with the controller as claimed.

Bell teaches a controller for controlling the position of blinds that tracks the sun and adjusts the blinds accordingly. (Column 10, lines 31-35) The controller includes a memory that contains solar information. (Column 11, line 41 - Column 12, line 59; stored commands for setting the blinds to a desired position in response to sunlight at a given time correspond to "solar information")

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the window of Noguchi et al by providing it with the automatic blind control system of Bell, because Bell teaches that this system provides

improved automatic blind control over prior art systems, and provides enhanced security as well as an aid to disabled, blind, elderly, or infirm building occupants. (Background, Summary sections) Clearly, the convenience of automatic blind control would have been attractive to one having ordinary skill in the art.

In this rejection, undue weight cannot be given to the limitation, "said controller directs said plurality of cells to follow said movement of the sun", because the limitation is directed to the intended use of the device. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). In this instance, the blades of the blind could clearly be adjusted by the controller to follow movement of the sun (Note Bell, Column 10, lines 31-35), and the limitations of the claim are therefore met.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Field (US 4,137,098) and Gillard (US 5,221,363) disclose solar cells disposed on blinds within double-pane windows.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Jeffrey T. Barton whose telephone number is (571) 272-1307. The examiner can normally be reached on M-F 9:00AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JTB
25 May 2007

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